



THE LEAGUE OF POWERFUL

INNOVATORS



intersil
comics

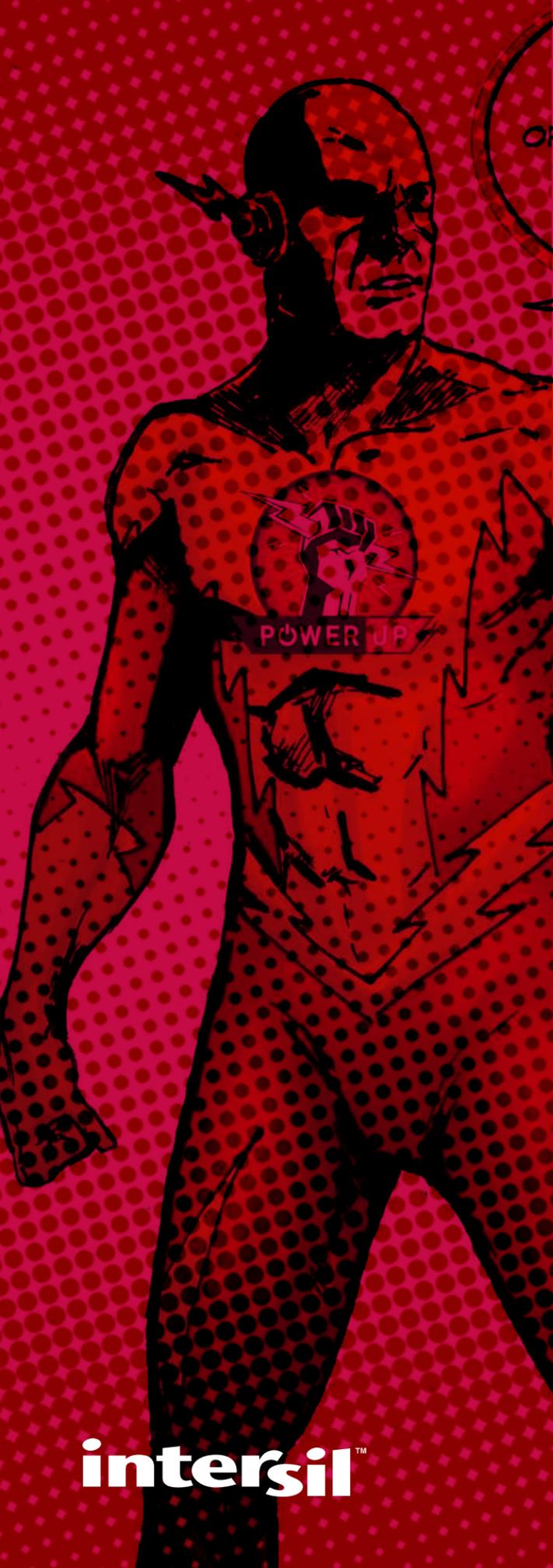
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GAVIN SMITH 2014
TIM WITTE



THE LEAGUE OF POWERFUL INNOVATORS

COMIC BOOK CHAPTERS

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4. Lost in a Sea of Silicon
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This comic book is intended for entertainment purposes and any names, characters, and events and incidents are fictional. Any resemblance to actual persons, living or dead, and businesses is purely coincidental.

The League of Powerful Innovators is a mighty band of superheroes dedicated to fighting for truth and justice in the silicon universe. Each possesses unique powers to drive technology to the betterment of mankind while defeating foes that would control technology for evil instead of good.



Captain Power is the leader of the League of Powerful Innovators. A master at power management, he can fly by harnessing the electrical energy around him. He is strong, fast and intelligent. Captain Power was a theatre major in college and can therefore be somewhat dramatic in the course of performing his superhero duties.



Anna Log can fly through the air leaving an analog waveform trail behind her as she soars. Anna is strong, fast and the master of all things analog. She works well with the digital realm and can amplify her strength at will...so much so that Anna keeps Digitar humble by regularly beating him at arm wrestling.



Digitar is master of the digital power realm. He flies using his powerful scepter, The Navigator. The Navigator also allows him to analyze and harness power with incredible accuracy. Digitar also owns a gym in Silicon City and is working on his own line of protein bars – Digi-Bars, available in tangy vanilla or boysenberry blend.



Rad Dude flies on a radiation hardened silicon surfboard. He has golden hair and a heart of gold to match. His gold plated suit protects him in deep space and looks totally gnarly. When he is not keeping space technology safe from the rigors of radiation, Rad Dude spends his time snowboarding on Neptune.



The Communicator has the ability to communicate with and control devices of all kinds. She is nimble and ninja-like using sword connectors to interface with any protocol. She is also a licensed marriage therapist, consulting with couples on how to communicate with each other without screaming and name-calling.

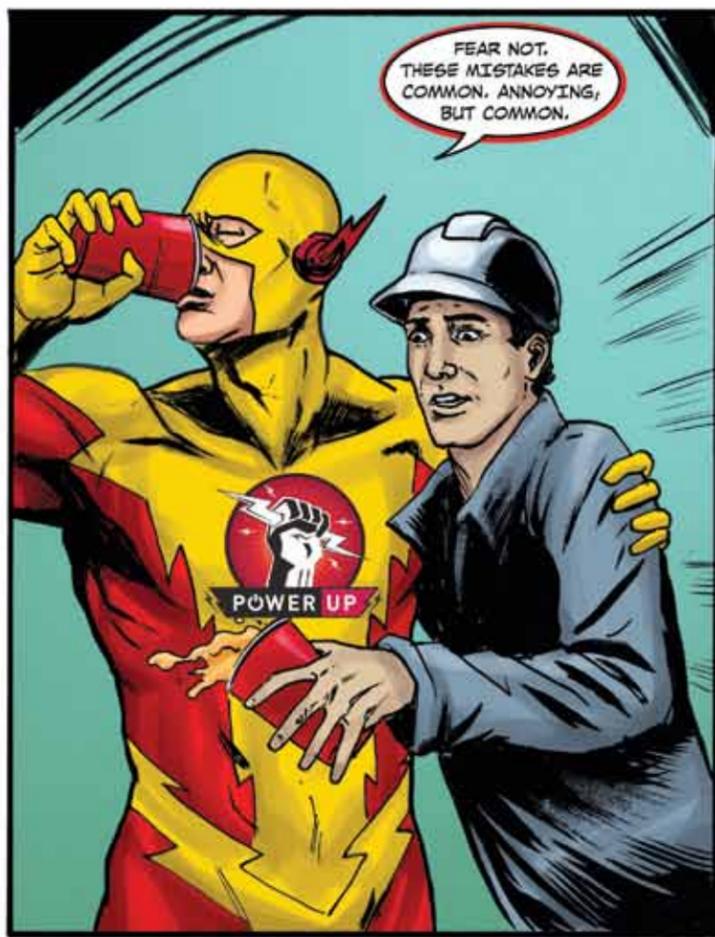


The Chameleon is truly a unique creature, He is able to see light and color in ways never thought possible. His scaly skin can bend light to create a cloaking effect. He can see in dark and is a magnificent climber. Destined to remain a bachelor, The Chameleon seems to have little luck attracting mates with his head bobbing and bright orange throat puffing.



The Monitor is a highly developed floating droid capable of seeing in all directions at once. Even more impressive, Monitor can bend the laws of physics with his amazing ability to measure analog power and digitally communicate its value. Monitor moonlights as server at Silicon City's Sonic Drive-In where he has never spilled an order.

Design Dilemma



GO TO [INTERSil.COM/APPLICATIONS](http://intersil.com/applications) TO SEE INTERSIL'S COMPLETE LIBRARY OF APPLICATION BLOCK DIAGRAMS FOR INDUSTRIAL, INFRASTRUCTURE, CONSUMER, AUTOMOTIVE AND SPACE APPLICATIONS.

GO TO [INTERSil.COM/ISIM](http://intersil.com/isim) TO TRY ISIM, INTERSIL'S INTERACTIVE WEB-BASED DESIGN TOOL FOR SELECTING AND SIMULATING POWER MANAGEMENT AND OP AMPS.

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COMPETTIVE OPVANTAGE



MAXMUM, ONE OF THE MOST EVIL TECHNOLOGY FIENDS, IS ONCE AGAIN UP TO HER OLD TRICKS. THIS TIME, SHE'S PLANTED A TECHTRON BOMB SOMEWHERE IN SILICON CITY, AND IT DOESN'T LOOK LIKE I HAVE MUCH TIME TO FIND IT.

FORTUNATELY I HAVE THESE NANO-DRONES THAT ARE CAPABLE OF DETECTING THE HEAT SIGNATURE OF AN ACTIVATED NASTY BOMB.



MAXMUM! WOULDN'T A BROOMSTICK BE MORE APPROPRIATE FOR YOU?

PERHAPS... BUT A BROOM COULDN'T DO...



THIS!

GEEZ, I'M REALLY GETTING TIRED OF HER SMOKE AND MIRROR GADGETS. BUT RIGHT NOW THE DISTRACTION WILL GIVE ME A CHANCE TO SEE HOW MY DRONES ARE PERFORMING.



THOSE DRONES ARE EQUIPPED WITH INTERSIL'S HIGH PRECISION OP AMPS THAT ENABLE THE MOST ACCURATE SENSORS IMAGINABLE.

AND HIGH SPEED SO THEY CAN TRANSMIT HIGH DEF VIDEO AND HIGH SPEED DATA RIGHT BACK TO ME.

HAD ENOUGH OF MY SMOKE?



COME ON BABIES. DO YOUR MAGIC WHILE THERE'S STILL TIME.



TIME, MY DEAR? I BELIEVE IT'S TIME TO PUT YOU IN TIME OUT. YOUR LITTLE MARBLES AREN'T FAST OR SENSITIVE ENOUGH TO FIND MOMMA'S LITTLE SURPRISE.



GOT IT! NOW I'M OFF TO DISARM THAT LITTLE ANNOYANCE.

ALL RIGHT, ANNA LOG... I'VE GOT YOU RIGHT WHERE I WANT YOU!



NO... THAT'S NOT POSSIBLE. WHERE'D SHE GO?



YOU'LL SOON PAY FOR YOUR IMPUDENCE, MY CHILD. PLAYTIME IS OVER FOR NOW, BUT I HAVE PLENTY MORE TOYS HIDDEN AROUND SILICON CITY!

MEANWHILE...

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GO TO [INTERASIL.COM/OPAMPS](http://intersil.com/opamps) TO SEE HOW OUR BROAD PORTFOLIO OF AMPLIFIER PRODUCTS ENABLE A WIDE RANGE OF NEXT GENERATION APPLICATIONS SUCH AS PRECISION INSTRUMENTATION, MEDICAL, COMMUNICATION, AND INDUSTRIAL PROCESS CONTROL. INTERSIL OP AMPS ARE AMONG THE INDUSTRY'S HIGHEST-PERFORMANCE, HIGHEST-VALUE AMPLIFIER ICs ON THE MARKET.

THERE SEEMS TO BE NO REST FOR DIGITAR. THE NIGHTMARES ABOUT THE CONSTANT MISUNDERSTANDINGS AND MYTHS ABOUT DIGITAL POWER PLAGUE HIS EVERY WAKING HOUR.

001.3



PHASED and CONFUSED



TEXAS INSIDIOUS HAS MANAGED TO PUT ANOTHER DESIGN ENGINEER UNDER HIS DIGITAL POWER CONFUSION SPELL. HIS ONLY HOPE NOW IS DIGITAR HIMSELF.

YOU'RE FEELING VERY SLEEPY...VERY SLEEPY. AND STUPID. NOW, REPEAT AFTER ME...

AFTER ME.

NO, NOT YET.

NO, NOT YET.

UUGGGHHHH!

UUGGGHHHH!



LET'S TRY THIS AGAIN...I WANT YOU TO REPEAT "DIGITAL POWER IS CONFUSING."



WAKE UP! SNAP OUT OF IT.

HOW CAN POWER...BE... DIGITAL? THAT DOESN'T COMPUTE.



QUICK, LOOK INTO MY MAGICAL POWERNAVIGATOR BEFORE IT'S TOO LATE.

YES, I SEE.

POINT... CLICK... DRAG... DROP.



DIGITAL POWER IS CONFUSING.

ANALOG CONTROL LOOPS ARE JUST AS EFFICIENT.

ANALOG CONTROL LOOPS ARE JUST AS EFFICIENT.

AND YOU HAVE TO LEARN TO WRITE CODE.

AND YOU HAVE TO LEARN TO WRITE CODE.



YOU SHOULD BE SUFFICIENTLY IGNORANT NOW.

YOU SHOULD BE SUFFICIENTLY IGNORANT NOW.

NO, NOT ME! YOU'RE THE STUPID ONE.

NO, NOT ME! YOU'RE THE STUPID ONE.



SNAP OUT OF IT, MY DESIGNER FRIEND. YOU DON'T NEED TO LISTEN TO HIS FIENDISH IDEAS ANY LONGER.

YOU'RE TOO LATE, DIGITAR. HE'LL NEVER UNDERSTAND YOUR TECHNOLOGY NOW! HA HA.



THAT'S IT. KEEP WATCHING. YOU'RE STARTING TO SEE THE LIGHT.

INTERSIL'S DIGITAL POWER KNOWLEDGE CENTER IS YOUR ONE-STOP RESOURCE FOR EVERYTHING YOU NEED TO KNOW ABOUT DIGITAL POWER. GO TO INTERSIL.COM/DPKC FOR COMPLETE LIBRARY OF VIDEO TUTORIALS, SOFTWARE DOWNLOADS, USER GUIDES, EVALUATION BOARDS, WEBINARS AND WHITE PAPERS.



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MEANWHILE...

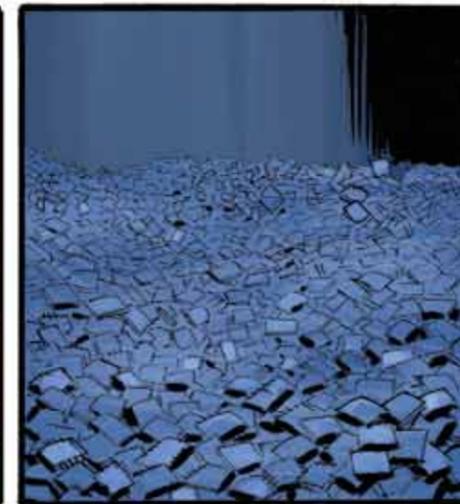
LOST in a SEA of SILICON



TEXAS INSIDIOUS... I KNEW I'D CATCH YOU TRYING TO KEEP ANOTHER CUSTOMER IN THE DARK ABOUT THE ADVANTAGES OF POWER MODULES.

NOW, PREPARE FOR RIGHTEOUS RETRIBUTION FOR YOUR CRIMES AGAINST TECHNOLOGY.

IT DOESN'T MATTER WHAT YOU DO TO ME, CAPTAIN POWER. I'VE GOT THIS LITTLE FELLER HOODWINKED ABOUT DISCRETE SOLUTIONS. HE'S GOING TO BE MY CUSTOMER FOR LIFE.



DEAR DEITY OF MY OWN CHOOSING, PLEASE DON'T LET ME BE TOO LATE.



LOOK BELOW, YOU FOOL! YOU'RE TOO LATE TO SAVE HIM!

GREAT SCOTT! WHAT HAVE YOU DONE INSIDIOUS? I'LL DEAL WITH YOU AFTER I SAVE THAT DESIGNER.



THAT'S ALWAYS BEEN YOUR WEAKNESS, CAPTAIN POWER-LESS. YOU CARE TOO MUCH ABOUT THE CUSTOMER.

SO LONG, FAREWELL, AUF WIEDERSEHEN...

GOODBYE.



THANK YOU, CAPTAIN POWER. TEXAS INSIDIOUS WAS TRYING TO OVERWHELM ME WITH AN OVERLY COMPLICATED PORTFOLIO OF OPTIONS.

DIDN'T YOU KNOW THAT INTERSIL POWER MODULES ARE COMPLETE DC-DC SOLUTIONS IN A SINGLE PACKAGE!

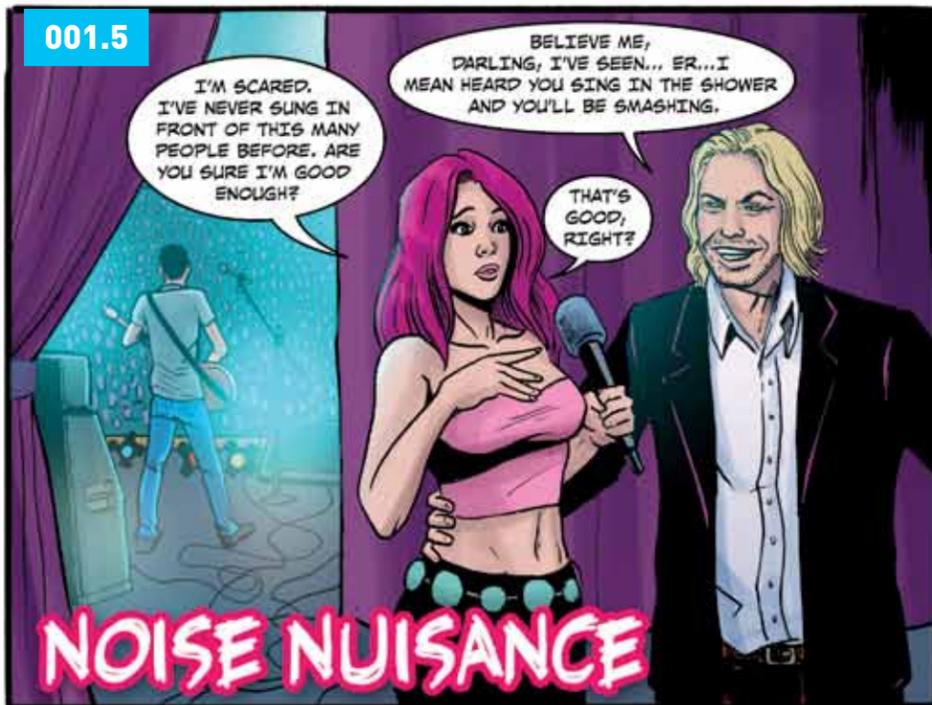
I GUESS I SHOULD'VE KNOWN THERE WAS A BETTER WAY.

GOTCHA!

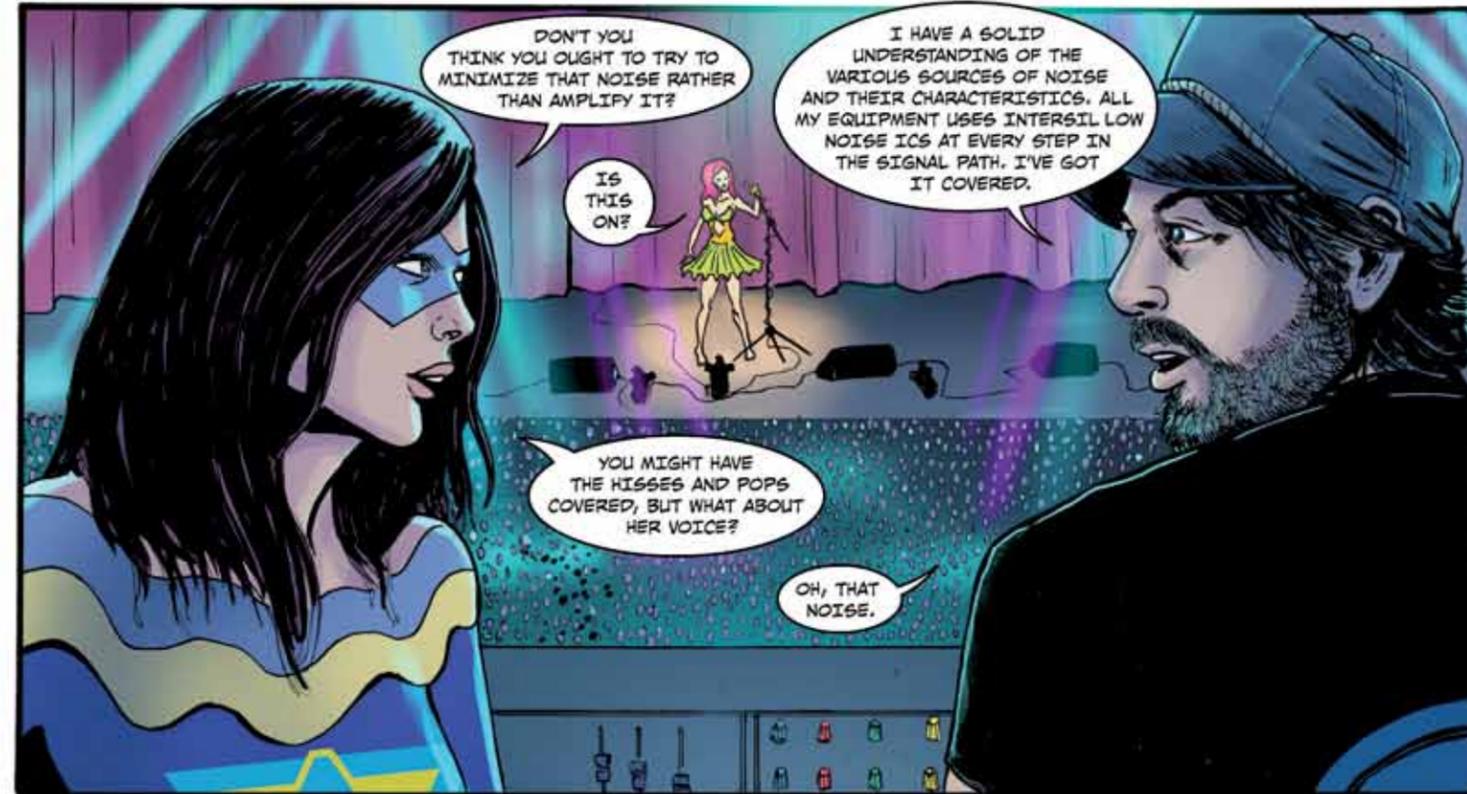
MEANWHILE...

GO TO [INTERASIL.COM/POWERMODULES](http://intersil.com/powermodules) TO LEARN MORE ABOUT HOW INTERSIL'S POWER MODULES REDUCE DESIGN TIME, LOWER COST AND SAVE BOARD SPACE. WITH INDUSTRY LEADING POWER TECHNOLOGY, THESE MODULES OFFER SMALL FORM FACTOR, HIGH EFFICIENCY AND ROBUST FEATURES SUCH AS DIGITAL CONTROL, CURRENT SHARING AND CASCADING UP TO SIX MODULES FOR HIGH OUTPUT POWER.





NOISE NUISANCE



GO TO [INTERSil.COM](http://intersil.com) TO LEARN MORE ABOUT INTERSIL'S LOW NOISE ANALOG DEVICES, INCLUDING OP AMPS, DCPS AND DATA CONVERTERS.

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MEANWHILE...



I GUESS WE REALLY HAVE NO CHOICE, CHIEF.

IT SEEMS THAT ONCE AGAIN, HE'S OUR ONLY HOPE.

DO YOU THINK THERE'LL EVER BE A TIME WHEN WE DON'T NEED HIM?

THE WAY THE WORLD IS CHANGING, SIR, WE NEED HIM NOW MORE THAN EVER.

STORM CLOUDS ON THE HORIZON

MAYOR MAYER



001.6

DIGITAR, SORRY TO BOTHER YOU, BUT WE'VE GOT A DIRE EMERGENCY. MY DAUGHTER CAN'T SEEM TO SNAP CHAT. IT LOOKS LIKE THE ENTIRE SOCIAL MEDIA CLOUD INFRASTRUCTURE IS DOWN...



IF YOU COULD FIND SOME TIME...

I GOT HERE AS FAST AS I COULD, MAYOR.

GREAT SCOTT! I DIDN'T EXPECT YOU TO GET HERE THAT QUICKLY.

I KNOW HOW YOUR DAUGHTER CAN BE. YOUR LIFE MUST BE A LIVING HELL RIGHT NOW.

I REMEMBER THE DAY WHEN THE ICE CREAM PARLOR RAN OUT OF HER FAVORITE RAINBOW SPRINKLES.

THAT INDEED WAS A DARK DAY IN SILICON CITY.

PERHAPS YOU TWO ARE EXAGGERATING JUST A BIT.



YES, WELL, I'LL JUST GET TO WORK THEN. THE NAVIGATOR SHOULD BE ABLE TO PINPOINT EXACTLY WHERE THE MALFUNCTION IS OCCURRING.



THIS IS WORSE THAN I SUSPECTED. IT LOOKS AS IF MAXMUM HAS SABOTAGED THE MAIN BASE.



OH YEAH, THAT REMINDS ME. I FORGOT TO MENTION THAT MAXMUM ESCAPED FROM PRISON EARLIER TODAY.

USING THE POWER NAVIGATOR TO GUIDE HIM, IT DOESN'T TAKE DIGITAR LONG TO GET TO THE ROOT OF THE PROBLEM.



TAKE THIS, YOU FIEND!

YOU'RE TOO LATE, DIGITAR. THERE'S ABSOLUTELY NOTHING YOU CAN DO TO FIX THIS PROBLEM.



WOW, THAT'S EXACTLY WHAT WE NEED TO FIX THE PROBLEM. THIS PURE DIGITAL CONTROL LOOP TECHNOLOGY FROM INTERSIL IS INCREDIBLY STABLE.



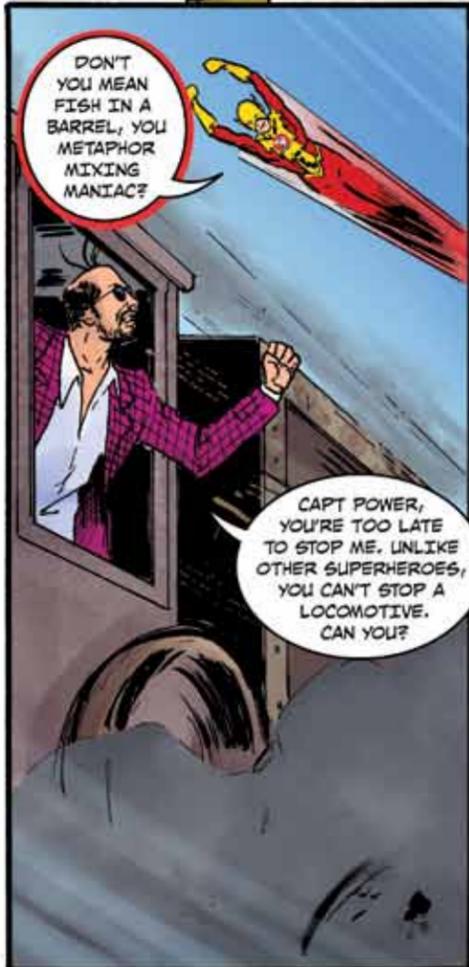
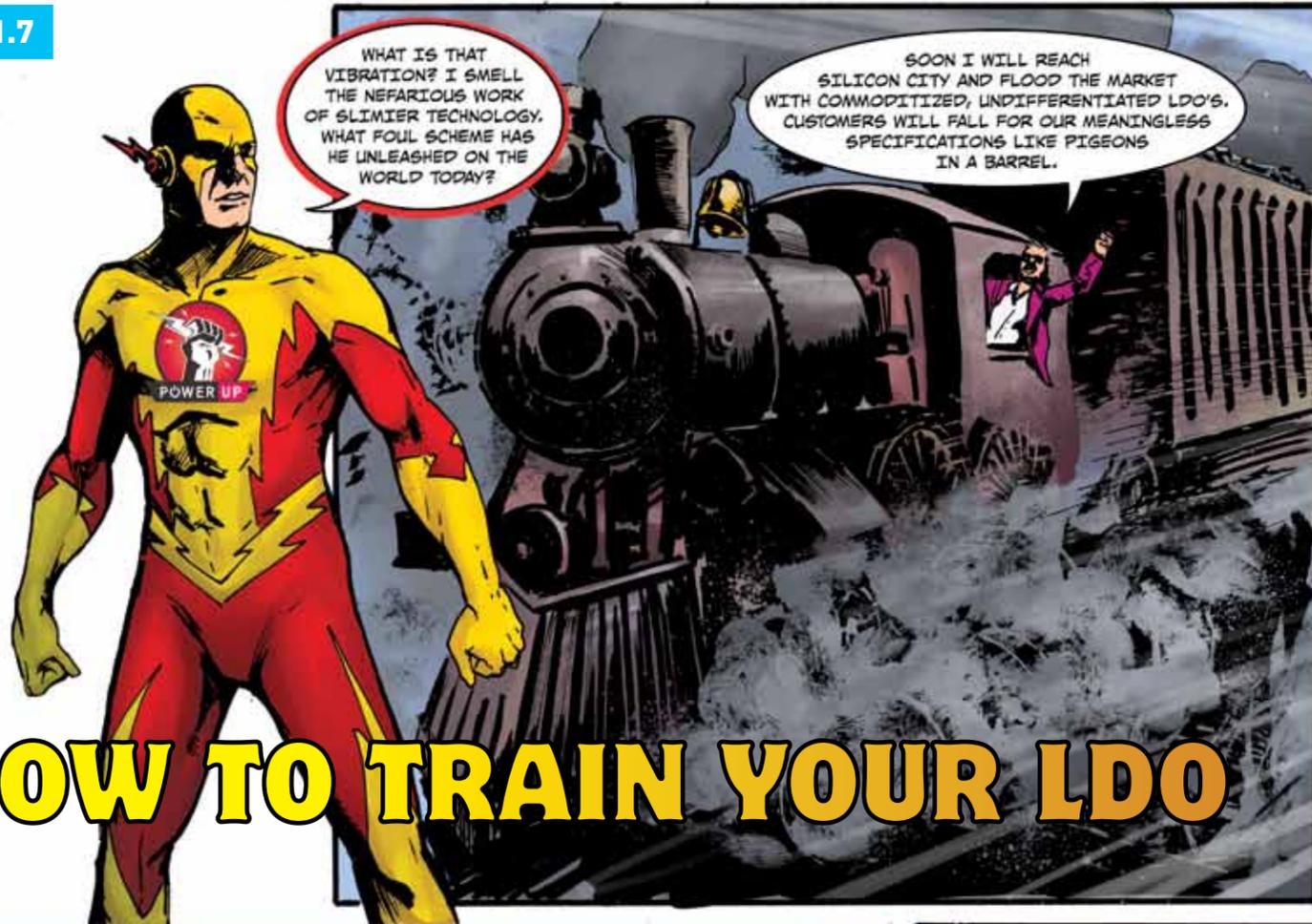
YOU MAY HAVE WON TODAY, DIGITAR, BUT I'LL GET YOU IN THE END!

MEANWHILE...

INTERSIL'S DIGITAL POWER PRODUCTS COMBINE A WORLD-CLASS DIGITAL POWER CONVERSION ARCHITECTURE WITH POWER MANAGEMENT LOGIC IN A SINGLE IC. FOR MORE INFORMATION ABOUT INTERSIL DIGITAL POWER GO TO INTERSIL.COM/DIGITALPOWER.



HOW TO TRAIN YOUR LDO



INTERSIL IS A LEADING LDO SUPPLIER IN LOW POWER HANDHELD APPLICATIONS WITH WORLD-CLASS DIFFERENTIATED SINGLE AND DUAL LDO'S WHICH HAVE ULTRA-HIGH PSRR UP TO 3MHZ, LOW INPUT VOLTAGE RANGE, TINY PACKAGES, AND ULTRA-LOW NOISE AND QUIESCENT CURRENT.

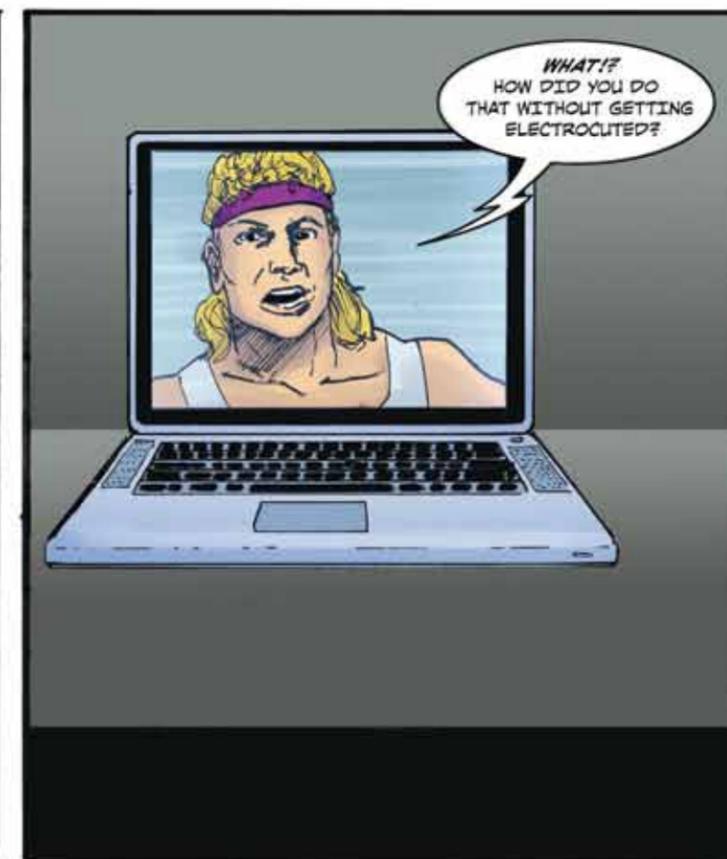
LEARN MORE AT INTERSIL.COM/LDO.

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MEANWHILE...

ANNA LOG HEARD THE DESIGNER'S DISTRESS CALL. IT SEEMS THAT ANALOG DEVIOUS HAS USED A FORCE FIELD TO COMPLETELY PARALYZE A DESIGN ENGINEER!

001.8



INTERSIL OFFERS A COMPLETE PORTFOLIO OF GENERAL PURPOSE ANALOG BUILDING BLOCKS, INCLUDING PRECISION AMPLIFIERS, VOLTAGE REFERENCES, DCPS, REAL-TIME CLOCKS, SWITCHES/MUXES, DATA CONVERTERS, AND INTERFACE. GO TO INTERSIL.COM/SWITCHES TO LEARN MORE ABOUT HOW OUR BROAD PORTFOLIO OF ANALOG SWITCHES AND MULTIPLEXERS PROVIDE EXCELLENT PERFORMANCE ACROSS A WIDE INPUT VOLTAGE RANGE. PRODUCTS INCLUDE 40V OPERATION DOWN TO LOW VOLTAGE USB SWITCHING. **intersil**



RAD DUDE CONTINUES TO SURF THE COSMOS IN SEARCH OF HIS MOTHER'S HOME PLANET OF ENDURA. MAYBE THERE HE WILL FINALLY FIND PEACE OF MIND. RAD DUDE'S MOTHER WAS AN ALIEN EXPLORER/ABDUCTRESS; HIS FATHER A PROFESSIONAL SURFER WHO LIKED TO TAKE LONG WALKS ON DESOLATE BEACHES. BEING A HYBRID LIFE FORM ISN'T EASY. FROM HIS MOTHER, RAD DUDE GOT A NATURAL TOLERANCE TO ALL FORMS OF RADIATION. FROM HIS DAD HE GOT TOTAL AWESOMENESS. NOW, SHUNNED BY THE ENTIRE SURFING COMMUNITY BECAUSE OF HIS INABILITY TO TAN, RAD IS DESPERATELY LOOKING FOR A PLACE WHERE HE MIGHT FIT IN. IF ONLY THE PETTY PROBLEMS OF EARTHLINGS LIKE BILLIONAIRE ADVENTURER RICHARD BRANSCUM DIDN'T KEEP GETTING IN HIS WAY.



WOW, WHEN YOU SAID OUR DATE WOULD BE "OUT OF THIS WORLD," YOU WEREN'T KIDDING.
AND WHICH PLANET IS THAT AGAIN?
THAT'S UNIMPORTANT. THE ONLY THING YOU SHOULD CONCERN YOURSELF WITH NOW IS...



LET ME SEE IF I TOTALLY GOT THIS RIGHT. YOU WENT ON A DATE IN SPACE WITHOUT RADIATION HARDENED ICS? THAT'S A BUMMER DUDE. I'LL CATCH A COSMIC WAVE AND BE RIGHT THERE.



OKAY, I'VE GOT HIGH-DOSE AND LOW-DOSE ASSURED PERFORMANCE ICS FROM INTERSIL. WE CAN JUST SWITCH THESE OUT.



...HOW SMASHING I LOOK FLOATING IN ZERO GRAVITY.
MR. BRANSCUM, WE HAVE A PROBLEM.



OUR AVIONICS ARE MALFUNCTIONING AND WE'VE LOST COMPLETE CONTROL OF THE CRAFT.
IT'S THE RADIATION. OUR ICS ARE FRIED!
IT'S ALMOST AS IF THE DESIGNERS DIDN'T USE RAD HARD ICS FROM INTERSIL.
NO ONE WOULD BE THAT STUPID.
THEY'D HAVE TO BE A COMPLETE IMBECILE.
I'LL SAY.



DON'T WORRY, MY DEAR, EVERYTHING WILL BE SHIP SHAPE IN JUST A FEW MOMENTS. MORE CHAMPAGNE?

HEY, WHERE'D THAT CUTE GUY COME FROM?



EVERYTHING IS FIXED, MR. BRANSCUM.

I'M SURE GLAD YOU SHOWED UP. IT WAS PRETTY BORING BEFORE YOU GOT HERE.

MEANWHILE...



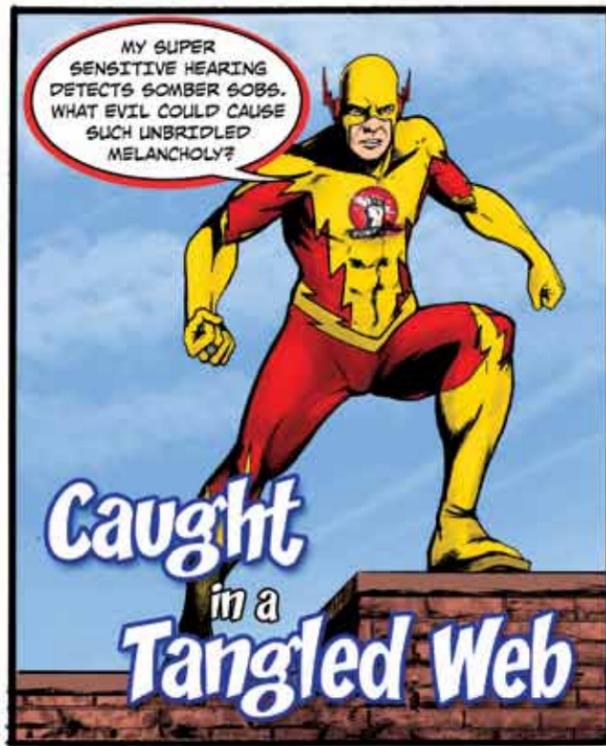
LOOK, WE DON'T NEED TO GO INTO THE DETAILS OF WHY SOMEONE MIGHT HAVE SPENT HIS MONEY ON A NEW NECKLACE FOR THE LOVELY LADY INSTEAD OF RADIATION HARDENED ICS. HOW DO WE FIX THIS PROBLEM?!

UNLESS YOU'VE GOT RAD DUDE IN YOUR PHONE CONTACTS LIST, WE'RE SCREWED.



OH, COME TO THINK OF IT...I DO.

INTERASIL HAS AN UNPARALLELED TRACK RECORD OF PROVIDING HIGHLY RELIABLE, EFFICIENT AND ACCURATE RADIATION HARDENED POWER PRODUCTS. GO TO INTERASIL.COM/RADHARD TO LEARN MORE ABOUT INTERASIL'S RAD HARD SOLUTIONS. **intersil**



INTERASIL OFFERS A WIDE SELECTION OF PWM CONTROLLERS DESIGNED FOR SWITCH-MODE DC/DC AND AC/DC POWER SUPPLIES REQUIRING AN ISOLATION TRANSFORMER, SUCH AS OFF-LINE AC/DC AND -48V TELECOM-INPUT DC/DC CONVERTERS.

GO TO INTERASIL.COM/ISOLATEDPOWER TO FIND COMPLETE ISOLATED POWER REFERENCE DESIGNS.

WHAT'S ANNA LOG DOING LURKING AROUND THIS NEIGHBORHOOD IN THE MIDDLE OF THE NIGHT? ALL THE MESSAGE SAID WAS TO MEET HER HERE "IF YOU REALLY WANT TO DEFEAT ANALOG DEVIOUS." PERHAPS SHE SHOULDN'T BE SO TRUSTING. IT'S ALL BEGINNING TO SOUND LIKE A TRAP!



ENTER THE COMMUNICATOR

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IT'S GOOD TO SEE YOU AGAIN, ANNA.



JUST AS I FIGURED. LOOK, YOU MAY NOT LIKE IT, BUT I'M A VITAL PART OF THE ANALOG WORLD AND I HAVE SOME UNIQUE POWERS. I'D LIKE TO JOIN YOUR LEAGUE OF POWERFUL INNOVATORS.



WELL, WE'RE NOT HIRING. BESIDES, THE WORK IS DANGEROUS, HIGHLY TECHNICAL AND DEMANDING.

I'M SURE SOLVING CUSTOMER PROBLEMS IS KIND OF FUN...

DID I MENTION DANGEROUS? LOOK, WE REALLY DON'T NEED ANY HELP.



YOU SEE, I HAVE THESE POWERS.



I CAN ENABLE ALMOST ALL INDUSTRIAL DEVICES TO COMMUNICATE WITH EACH OTHER, NO MATTER THE TYPE OF CONNECTION OR PROTOCOL.

THAT'S AMAZING!



I CALL MYSELF THE COMMUNICATOR, AND I CAN HELP YOU WITH AN ALMOST INFINITE NUMBER OF GLOBAL CUSTOMERS.

I HAVE UNDERESTIMATED YOU. I MAY HAVE A FEW JOBS FOR YOU RIGHT NOW!

WHO ARE YOU? AND WHY DID YOU WANT TO MEET ME?



YOU PROBABLY DON'T REMEMBER ME. I'VE BEEN WORKING IN YOUR LABS FOR ALMOST A DECADE NOW. YOU DON'T PAY MUCH ATTENTION TO MY TECHNOLOGY.



I'M SURE THAT'S NOT TRUE. I STAY ON TOP OF ALL THE R&D.



I WORK ON INTERFACE.

GEE, LOOK AT THE TIME. I SHOULD PROBABLY BE GETTING HOME.

AND ARMED WITH MY UNIVERSAL COMMUNICATION DEVICE...



INTERASIL OFFERS INDUSTRY-LEADING DEVICES TO ENABLE EFFICIENT AND RELIABLE COMMUNICATION FOR INDUSTRIAL CONTROL, NETWORKING, AND COMPUTING APPLICATIONS. DUAL PROTOCOL TRANSCEIVERS, VOLTAGE LEVEL TRANSLATORS, I²C BUFFERS, WIDE OPERATING VOLTAGE RANGE RS-232 TRANSCIVERS, AND RS-485/422 DEVICES WITH THE HIGHEST NOISE IMMUNITY AND ESD PROTECTION IN SMALL PACKAGES ARE AVAILABLE TO SUPPORT HIGH-SPEED DATA TRANSFER AND A VARIETY OF CONFIGURATIONS. GO TO INTERASIL.COM/INTERFACE TO LEARN MORE.



USING MY SENSING POWER, ALWAYS ADAPTING TO MY SURROUNDINGS, TAKES QUITE A TOLL ON ME.

FOR THE REST OF THIS TRIP, I'M JUST GOING TO SIT BACK AND ENJOY THE RIDE.

BUMPY FLIGHT



GREAT SCOTT! IS THAT AN ASTEROID FIELD AHEAD?

I THINK YOU'RE RIGHT. THEY MUST BE... OH... A FEW METERS AHEAD. OR SO.

AT LEAST... MAYBE EVEN... ER... I'M JUST GUESSING HERE, BUT I'D SAY AT LEAST 100 METERS.



SURE THING, ANNA.



SO, EXACTLY HOW IS A GIANT LIZARD GOING TO HELP US?

WELL, ONE OF HIS SPECIAL SENSING CAPABILITIES IS AN OPTICAL SENSOR THAT CAN ACTUALLY CALCULATE AN OBJECT'S DISTANCE FROM US. IT'S DONE BY MEASURING TIME OF FLIGHT.



595 METERS... TO BE EXACT.

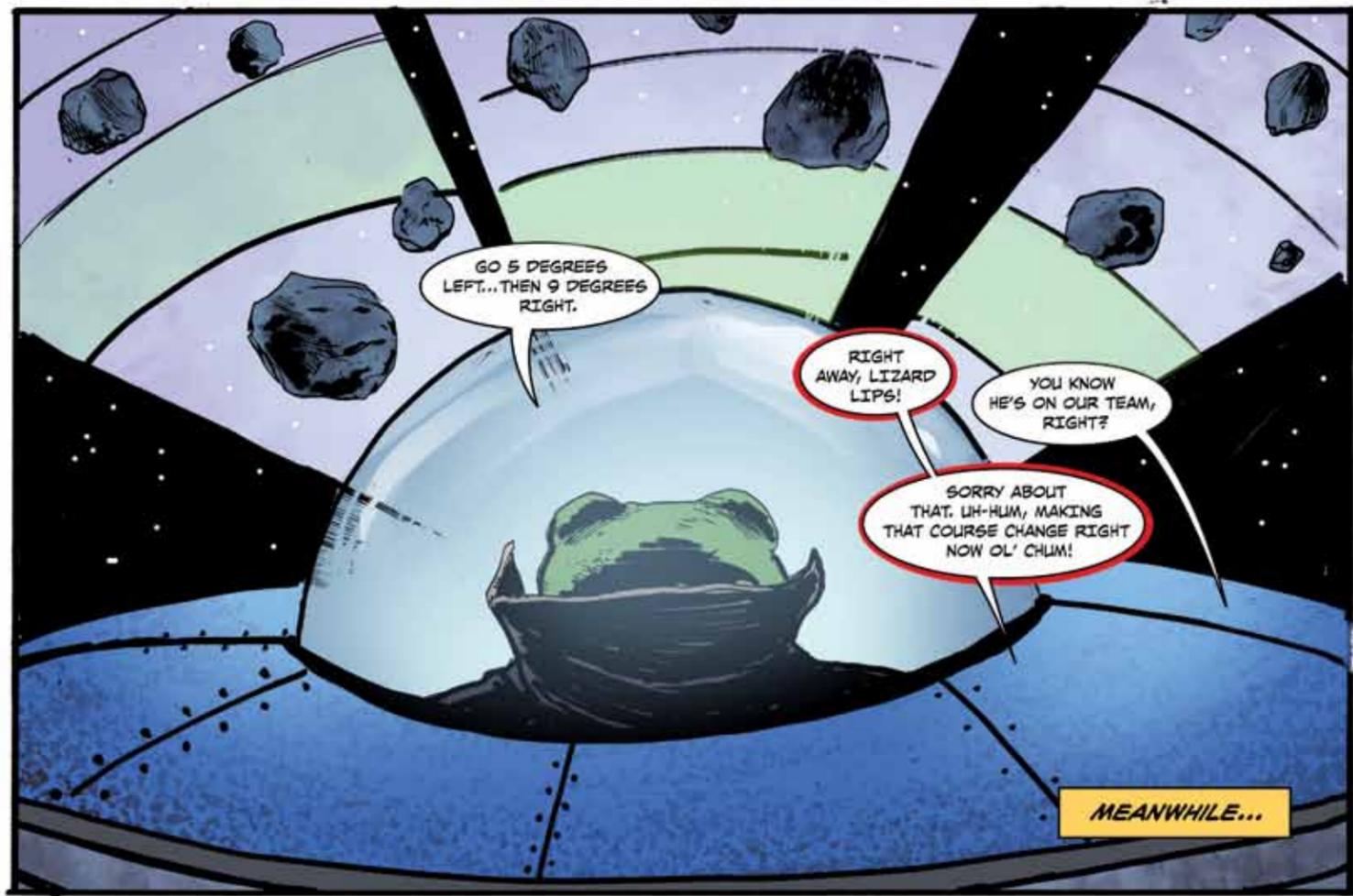


THAT'S EXACTLY WHAT I WAS GOING TO SAY...

YEP. OF COURSE BY NOW, THEY'RE EVEN CLOSER!



UH... CHAMELEON, OLD FRIEND, WE COULD USE YOUR SUPER SENSING CAPABILITIES TO MAKE IT THROUGH THIS ASTEROID FIELD.



GO 5 DEGREES LEFT... THEN 9 DEGREES RIGHT.

RIGHT AWAY, LIZARD LIPS!

YOU KNOW HE'S ON OUR TEAM, RIGHT?

SORRY ABOUT THAT. UH-HUM, MAKING THAT COURSE CHANGE RIGHT NOW OL' CHUM!

MEANWHILE...

GO TO intersil.com/lightensors TO LEARN MORE ABOUT HOW intersil's PROXIMITY SENSORS CAN BE USED TO MEASURE TIME OF FLIGHT, AS WELL AS GESTURE RECOGNITION, OPTIMIZING USER EXPERIENCES AND EXTENDING BATTERY LIFE IN CONSUMER DEVICES.



DEEP IN THE LABS OF THE LEAGUE OF POWERFUL INNOVATORS DIGITAR IS WORKING ON A VERY SIMPLE, SINGLE-CHIP POWER CIRCUIT DESIGN.

001.13



THE NAVIGATOR



DESIGNING WITH MODULES IS SO EASY, I COULD PROBABLY DO THIS IN MY SLEEP.



IN MY SLEEP... MAYBE. BUT NOT IN THE DARK.



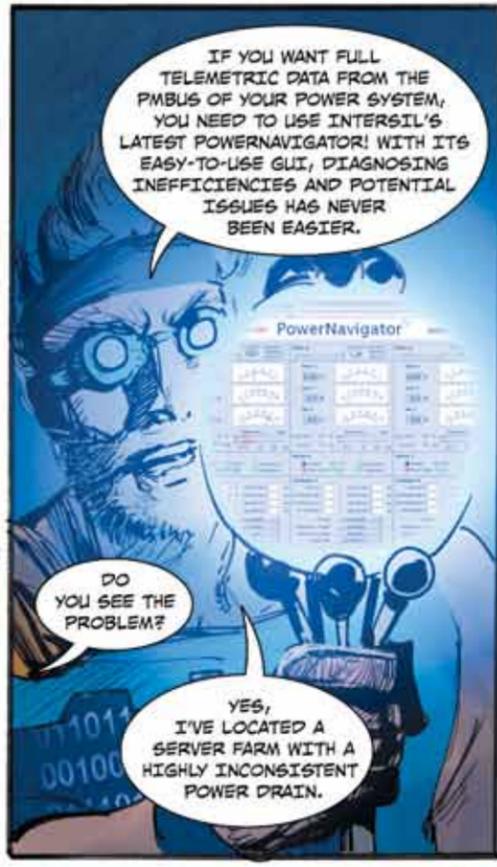
OKAY. GUESS I'LL GET BACK TO WORK.



THIS IS DIGITAR.
DIGIWHAT?
TAR.
HOW CAN I HELP YOU, MR. TAR
YOU SEE, I'M OVER HERE WORKING ON SAVING THE WORLD, AND IT SEEMS THAT MY POWER KEEPS GOING OUT
SORRY ABOUT THAT. WE'RE HAVING TROUBLE WITH THE STABILITY OF THE GRID. WE'RE TRYING TO DIAGNOSE THE PROBLEM RIGHT NOW...



TRYING TO DIAGNOSE A POWER PROBLEM?!
HOLD ON A SECOND, MR. TAR. DIGITAR JUST UNEXPECTEDLY FLEW IN THROUGH MY OPEN WINDOW.
MR. TAR?
HELLO?



IF YOU WANT FULL TELEMETRIC DATA FROM THE PMBUS OF YOUR POWER SYSTEM, YOU NEED TO USE INTERSIL'S LATEST POWERNAVIGATOR! WITH ITS EASY-TO-USE GUI, DIAGNOSING INEFFICIENCIES AND POTENTIAL ISSUES HAS NEVER BEEN EASIER.
DO YOU SEE THE PROBLEM?
YES, I'VE LOCATED A SERVER FARM WITH A HIGHLY INCONSISTENT POWER DRAIN.



TEXAS INSIDIOUS! I KNEW YOU'D BE AT THE BOTTOM OF THIS!

GO TO [INTERASIL.COM/POWERNAVIGATOR](http://intersil.com/powernavigator) TO LEARN MORE ABOUT INTERSIL'S POWERNAVIGATOR™ SOFTWARE THAT ENABLES CONFIGURATION AND MONITORING OF MULTIPLE DIGITAL-DC DEVICES USING A PC WITH A USB INTERFACE. POWERNAVIGATOR™ MAKES IT EASY TO CHANGE ALL FEATURES AND FUNCTIONS OF YOUR DIGITAL POWER SUPPLY DESIGN USING A SIMPLE GRAPHICAL USER INTERFACE.

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MEANWHILE...

IT SEEMS LIKE ONLY YESTERDAY WHEN IC DESIGNER MARY MACK COMPLETED HER FIRST PROTOTYPE DESIGNS OF THE MONITOR. BUT NOW, WITH THE NEWS FROM MOONBASE BOCA VISTA, IT LOOKS AS IF THIS NEW DEVICE IS THE ONLY TECHNOLOGY THAT CAN SAVE THEM.



ONE GIANT LEAP

001.14

GREAT SCOTT! WHAT DO YOU MEAN YOU CAN'T TELL US HOW EFFICIENTLY THE POWER SYSTEM IS RUNNING??

WHAT I MEAN IS... IS THAT I CAN'T TELL YOU HOW EFFICIENT THE POWER SYSTEM IS.

JUMPING JEEHOSAFAT! THIS CAN'T BE TRUE!

IS THERE ANYBODY ELSE THERE I CAN SPEAK WITH?

WHAT DO YOU MEAN SOMEBODY ELSE! I'M ALL YOU'VE GOT, MAN! I'M YOUR ONLY HOPE! WHAT'S WRONG WITH ME?!

I DON'T KNOW, YOU SEEM A LITTLE... STRESSED.

GENERAL, YOU'RE NOT ALONE. WE'RE HERE TO HELP.

BUT HOW CAN YOU POSSIBLY...

IT'S QUITE SIMPLE. YOU SEE, MOONBASE BOCA VISTA WAS BUILT DURING THE TIME OF ANALOG...

WHICH IS MY SPECIALTY

BUT WE'D LIKE TO GET SOME DIGITAL DATA ABOUT THE POWER SYSTEM TO MAKE SURE IT IS RUNNING EFFICIENTLY-WHICH IS MY SPECIALTY.

BUT I DON'T...

IT'S A DIGITAL POWER MONITOR.

AND SINCE IT IS BOTH ANALOG AND POWER, WE BOTH HAVE TO TURN OUR KEYS TO DEPLOY.

IT USES A CURRENT SENSE AMPLIFIER TO MEASURE THE CURRENT IN THE ANALOG WORLD...

AND CONVERTS INTO A STRING OF I²C DATA, WHICH CAN BE COMMUNICATED TO ANOTHER DIGITAL DEVICE SO THAT WE CAN MONITOR THE VOLTAGE, CURRENT AND POWER ON TWO POWER SUPPLY RAILS. WITH THAT DATA WE PERFORM CALCULATIONS TO MAKE SURE THE SYSTEM IS ALWAYS RUNNING EFFICIENTLY.

ONCE AGAIN YOU GUYS HAVE SAVED THE DAY. AS SOON AS I GET THE DIGITAL POWER MODULE INTEGRATED INTO THE SYSTEM, I'LL SEND THE DATA RIGHT OVER.

YOU BE SURE TO DO THAT!

I WILL.

ON THE DOUBLE!

...ARE YOU SURE THERE'S NOBODY ELSE THERE I CAN TALK TO?

GO TO GO.INTERSil.COM/DIGITAL-POWER-MONITOR TO LEARN MORE ABOUT INTERSil'S PRECISION DIGITAL POWER MONITOR FAMILY. THE ISL28023 IS A BI-DIRECTIONAL HIGH-SIDE AND LOW-SIDE DIGITAL CURRENT SENSE AND VOLTAGE MONITOR WITH A SERIAL INTERFACE. THE DEVICE MONITORS POWER SUPPLY CURRENT, VOLTAGE AND PROVIDES THE DIGITAL RESULTS ALONG WITH CALCULATED POWER.

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MEANWHILE...

WHAT'S THIS? OUR HERO CAPTAIN POWER HUNG FROM A HOOK LIKE A PIECE OF MEAT! PRETENDING TO BE A DESIGN ENGINEER, SLIMIER TECHNOLOGY CAPTURED CAPTAIN POWER AFTER LURING HIM TO AN OLD, ABANDONED LAB. HAS OUR HERO FINALLY MET HIS MATCH?

DOWN THE BATTERY DRAIN



NOT SO FAST SLIMEBALL. I'LL BLAST RIGHT THROUGH THESE CUFFS AND...

...WHAT'S HAPPENED TO MY VOLTRONIC BLAST POWERS?



I COULD LET YOU TRY TO FIGURE IT OUT FOR YOURSELF, BUT FRANKLY, I DON'T WANT TO WASTE THAT MUCH TIME. I'VE MADE THE SHACKLES OUT OF SECRET MAGNETIC MATERIAL THAT COMPLETELY NEUTRALIZES YOUR VOLTRONIC POWERS. AND WITHOUT THOSE POWERS, WELL, YOU'RE QUITE ORDINARY NOW, AREN'T YOU?



I MIGHT HAVE A FEW TRICKS UP MY SLEEVE...



OH PLEASE, SURELY YOU DON'T EXPECT TO CUT YOUR WAY THROUGH WITH THAT TINY LITTLE DEVICE.

YOU MIGHT BE SURPRISED HOW POWERFUL THESE LITTLE GADGETS HAVE GOTTEN THESE DAYS.



SO GOOD OF YOU TO FINALLY WAKE UP. I WOULDN'T WANT YOU TO MISS HOW MY NEW POSITRON GUN WILL ALLOW ME TO...DARE I SAY... RULE THE WORLD.



YOUR BATTERY WILL RUN DEAD...

IT WILL NEVER HANDLE THE SPIKES.

WHAT'S YOUR POWER SOURCE?

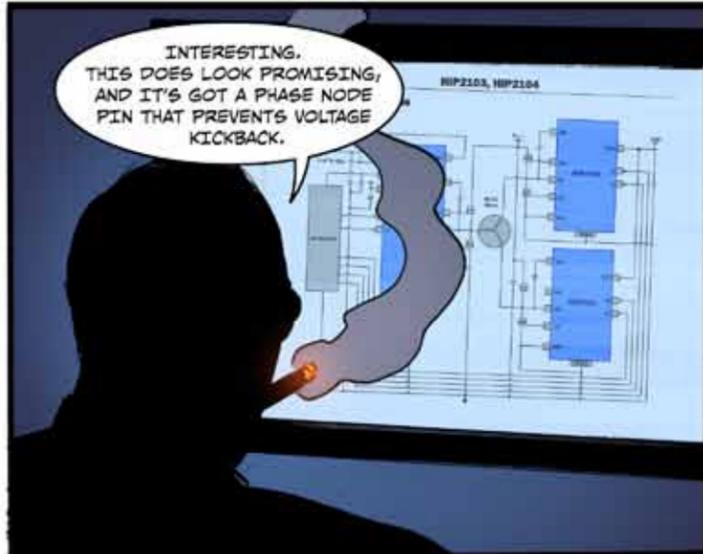
MULTI-CELL LI-ION.

MAYBE... IF I WASN'T USING A BRUSHLESS MOTOR.

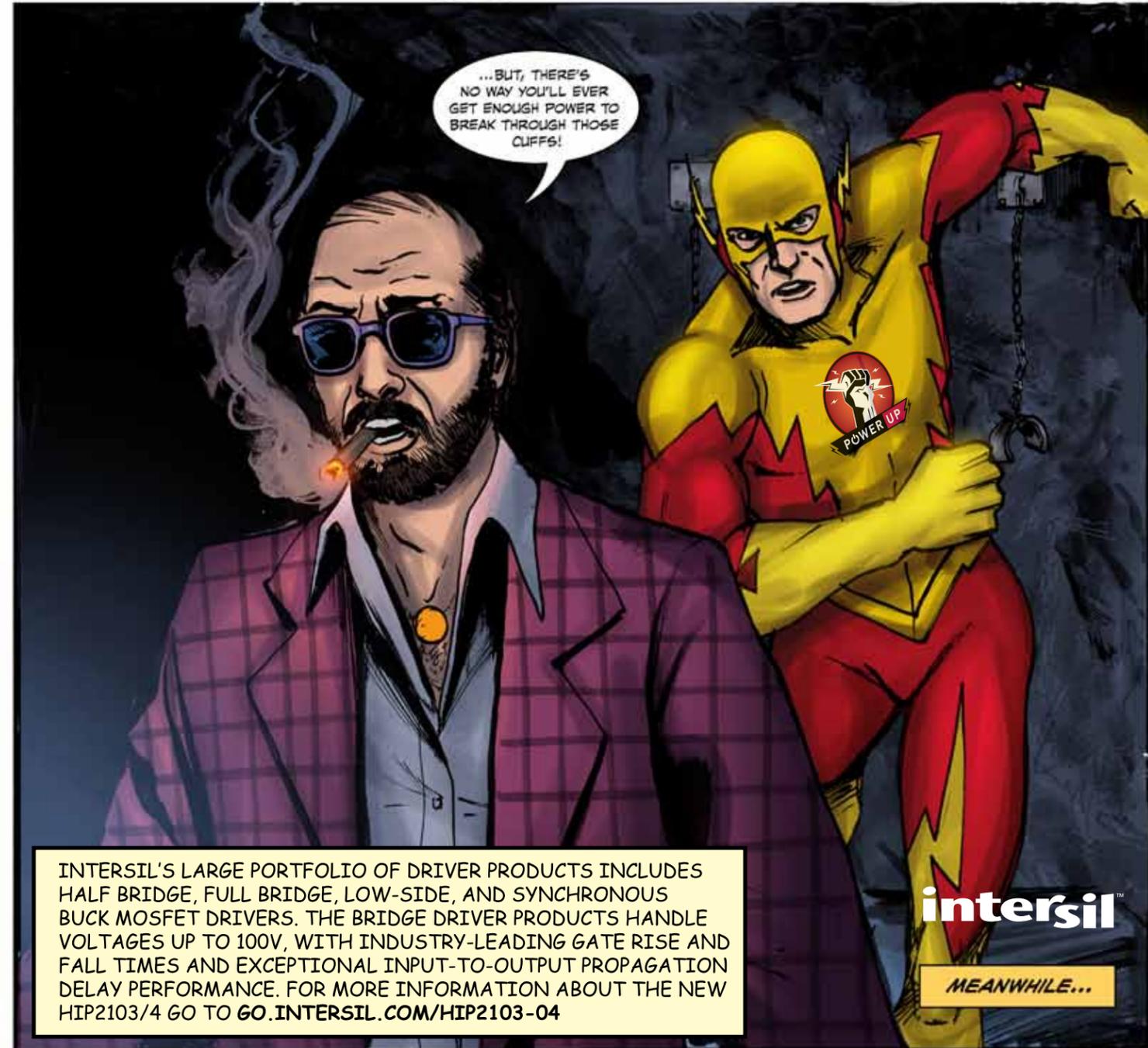
I GUESS YOU'RE NOT FAMILIAR WITH INTERSIL'S LATEST BRIDGE DRIVERS, LIKE THE HIP2103...

OF COURSE.

ARE THE DATASHEETS ON THE WEBSITE?!



INTERESTING. THIS DOES LOOK PROMISING, AND IT'S GOT A PHASE NODE PIN THAT PREVENTS VOLTAGE KICKBACK.



...BUT, THERE'S NO WAY YOU'LL EVER GET ENOUGH POWER TO BREAK THROUGH THOSE CUFFS!

INTERSIL'S LARGE PORTFOLIO OF DRIVER PRODUCTS INCLUDES HALF BRIDGE, FULL BRIDGE, LOW-SIDE, AND SYNCHRONOUS BUCK MOSFET DRIVERS. THE BRIDGE DRIVER PRODUCTS HANDLE VOLTAGES UP TO 100V, WITH INDUSTRY-LEADING GATE RISE AND FALL TIMES AND EXCEPTIONAL INPUT-TO-OUTPUT PROPAGATION DELAY PERFORMANCE. FOR MORE INFORMATION ABOUT THE NEW HIP2103/4 GO TO GO.INTERASIL.COM/HIP2103-04

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MEANWHILE...

IT'S NOT OFTEN I CATCH SLIMIER TECHNOLOGY, ANALOG DEVIIOUS AND MAXMUM HANGING OUT TOGETHER. WHAT ON EARTH ARE THOSE TECHNOLOGICAL FIENDS UP TO NOW?



COLOR of CRIME



THIS WHOLE PLACE GIVES ME THE CREEPS. BUT WHAT DO I KNOW, I'M JUST A SIX FOOT LIZARD.

I BETTER CHECK IN WITH ANNA.



ANNA, I FOUND THEIR LAIR. I'M GOING INSIDE AND MAYBE START BREAKING BAD GUYS.

THAT'S COLD BLOODED, CHAM.

YEAH... I'M A REPTILE.

GOOD POINT. STILL, JUST SPY FOR NOW. BETTER ACTIVATE YOUR STEALTH MODE.



THAT'S EASY FOR ME BUT HOW ABOUT MY FASHIONABLE COMM WATCH? WON'T THAT GIVE ME AWAY?

NO. IT USES INTERSIL'S DIGITAL RGB COLOR LIGHT SENSORS TO ACCURATELY DETECT COLOR AND LUX IN LOW- TO HIGH-LIT ENVIRONMENTS.

THE SENSORS THEN WORKS WITH YOUR WATCH'S OWN CLOAKING MODE.



COOL. TALK TO YOU LATER. GOING STEALTH MODE.



TEXAS, WE HAVE THE INTERSIL LEADER'S SCHEDULE. WE CAN TAKE HIM ANYTIME WE WANT.



EXCELLENT, MY CLAMMY, NOXIOUS FRIEND.

WE WILL KIDNAP HIM AND USE INTERSIL'S ADVANCED TECHNOLOGY TO DOMINATE THE WORLD.



TEXAS, DEAR, WE WILL SEND YOU HIS ITINERARY AND THE BRAIN-EXTRACTOR AS... OH MY GOODNESS. WHAT IS THAT SMELL?

SORRY. I HAVE A NERVOUS STOMACH.



I BETTER GET THE NEWS TO THE LEAGUE OF POWERFUL INNOVATORS BEFORE IT'S TOO LATE.

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GO TO [INTERASIL.COM/LIGHTSENSORS](https://www.intersil.com/lightensors) TO LEARN MORE ABOUT HOW INTERSIL'S OPTICAL SENSORS OPTIMIZE USER EXPERIENCE AND EXTEND BATTERY LIFE IN CONSUMER DEVICES.
GO TO [GO.INTERASIL.COM/RGB-SENSOR](https://www.intersil.com/rgb-sensor) TO LEARN MORE ABOUT INTERSIL'S LATEST SENSORS THAT MEASURE THE AMOUNT OF RED, GREEN AND BLUE LIGHT TO SENSE THE AMBIENT COLOR TEMPERATURE. THE RGB SENSOR COMMUNICATES DIRECTLY WITH A DEVICE'S CORE PROCESSOR TO PROVIDE CONSUMERS WITH A MORE CRISP AND COLOR-CONSISTENT EXPERIENCE WHILE EXTENDING BATTERY LIFE.

A HERITAGE OF POWERING INNOVATION



Intersil is a leading provider of innovative power management and precision analog solutions. The company's products form the building blocks of increasingly intelligent, mobile and power hungry electronics, enabling advances in power management to improve efficiency and extend battery life.

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